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TITLE: Regulation of Vitamin D Metabolism

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#### Introduction

Compared to whites, blacks and Asian Indians have a reduction in serum 25-hydroxyvitamin D [25(OH)D] as a consequence of increased skin pigment that causes a diminished rate of dermal production of vitamin D<sub>3</sub> from 7-dehydrocholesterol and possibly of increased activity of 25(OH)D-24-hydroxylase, the rate-limiting enzyme for degradation of vitamin D metabolites, in cultured skin fibroblasts. Thus, production and degradation of 25(OH)D may be altered in these two racial groups. The purpose of the proposed research grant is to determine the response of serum 25(OH)D to vitamin D in different racial groups, whites, blacks and Asian Indians. This will be accomplished by determining the response of serum 25(OH)D to treatment with vitamin D in individuals.

#### Body

To date, the human subject restriction for this grant by the Army has not been removed, no studies have been carried out, so no results are available. We have revised our human subject protocol four times, revised our scientific protocol an additional time, and participated in a number of teleconferences with the Office of Regulatory Compliance and Quality. The most recent resubmissions in February and May 2004 have not had any response from the Army to date.

#### Key Research Accomplishments

N/A

#### Reportable Outcomes

N/A

#### Conclusions

N/A

#### References

N/A

#### Appendices

None